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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,102	03/11/2004	Hisashi Umeda	0941.70006	5914
7590	05/07/2007			
Patrick G. Burns, Esq. GREER, BURNS & CRAIN, LTD. Suite 2500 300 South Wacker Dr. Chicago, IL 60606			EXAMINER RICKMAN, HOLLY C	
			ART UNIT 1773	PAPER NUMBER
			MAIL DATE 05/07/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/798,102	UMEDA ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Holly Rickman	1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 February 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17,31-38,41,43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-17,31-38,41,43 and 44 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/25/06;11/20/06.
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The rejection of claim 8 under 35 U.S.C. 112, second paragraph, is withdrawn in view of Applicant's amendments.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-17, 31-38, 41, and 43-44 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamanaka et al. (US 2002/0064689).

Yamanaka et al. disclose a magnetic recording medium and apparatus having the following structures as shown in Figures 1 and 13:

Fig. 1

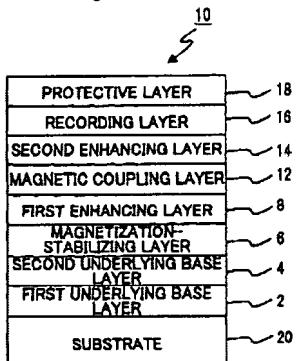
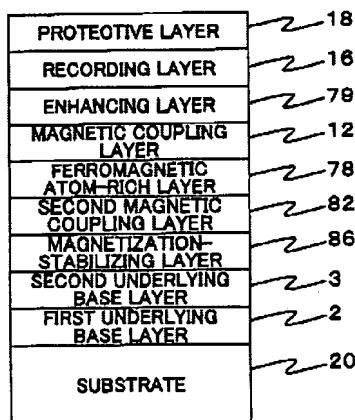


Fig. 13



The reference teaches that the magnetic layers are antiferromagnetically coupled across the coupling layers. The reference also teaches that the enhancing layers (corresponding to the claimed bonding layers) are ferromagnetically coupled with the adjacent magnetic layer. See paragraphs 0022, 0024, 0028, 0053, 0055, 0090-0094, 0109, 0111.

The reference is silent with regard to the claimed relationship between the dynamic coercivities of each of the antiferromagnetically coupled magnetic layers. However, the examiner maintains that the structure taught by Yamamaka et al. inherently satisfies these

features of the claims. The reference teaches a recording medium that is substantially the same in structure and composition as that claimed by Applicant. In addition, the reference shows hysteresis curves for the structures shown above (see Fig 1 and 13) which are substantially the same as shown by Applicant. The hysteresis curves shown by Yamanaka et al. are shown below:

Fig. 14

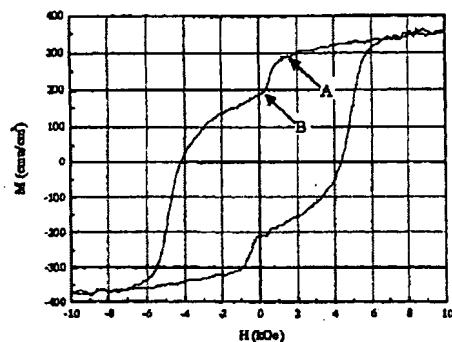
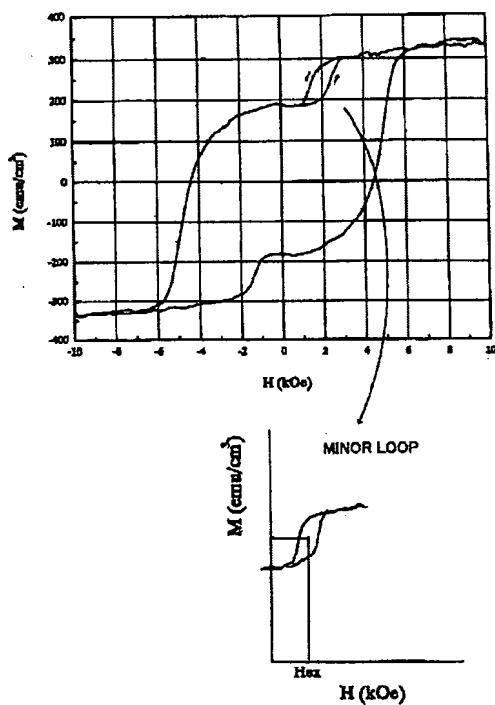


Fig. 11



Thus, the examiner maintains that the recording medium having the structure, composition, and magnetic characteristics as shown by the prior art would inherently satisfy the claim limitations directed to dynamic coercivities, static coercivities, the relationship between dynamic and static coercivity, and the relationship between anisotropic field of the respective magnetic layers.

It has been held that where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the burden of proof is shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products where the rejection is based on inherency under 35 USC §102 or on prima facie obviousness under 35 USC §103, jointly or alternatively. *In re Best, Bolton, and Shaw*, 195 USPQ 430. (CCPA 1977).

#### ***Response to Arguments***

5. Applicant's arguments filed 2/12/07 have been fully considered but they are not persuasive.

Applicant argues that the limitations of the claims directed to dynamic coercivities of the claimed ferromagnetic and magnetic layers is not inherent in the invention disclosed by Yamanaka et al. Applicant maintains that "in the magnetic recording medium 15 not using the present invention, such as the magnetic recording medium of Yamanaka et al.,... the dynamic coercivities  $Hc1'$  and  $Hc2'$  of the ferromagnetic layer 16 and the magnetic layer 18 during the magnetic field switching time  $tDY$  has a relationship  $Hc1' < Hc2'$ ."

The examiner notes that attorney arguments cannot take the place of evidence in the record (see MPEP 2145). Furthermore, it is not clear to the examiner what Applicant's basis is

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for equating Yamanaka et al. with "the magnetic recording medium 15 not using the present invention."

There is no evidence of record to rebut the examiner's position that Yamanaka et al inherently meets the limitations of the claims directed to dynamic coercivity. The position of inherency is based upon the fact that the recording structure taught by Yamanaka et al is substantially the same in structure and composition as that claimed by Applicant's. In addition, the structure taught by Yamanaka et al. exhibits substantially the same magnetic properties as the claimed invention as evidenced by the hysteresis curves shown in Figures 11 and 14.

Thus, the examiner maintains that the burden of proof has been shifted to applicant to show that prior art products do not necessarily or inherently possess characteristics of claimed products. This burden of proof has not been met.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is (571) 272-1514. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Holly Rickman  
Primary Examiner  
Art Unit 1773